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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/726,980	12/03/2003	Do-Hwan Lim	8836-210 (IB12211-US)	5117

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EXAMINER

SINGH, RAMNANDAN P

ART UNIT	PAPER NUMBER
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2614

MAIL DATE	DELIVERY MODE
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07/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No. 10/726,980	Applicant(s) LIM, DO-HWAN	
Office Action Summary	Examiner Ramnandan Singh	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-17 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) <input type="checkbox"/> Notice of Informal Patent Application
6) <input checked="" type="checkbox"/> Other: <u>Restriction</u> |
|--|--|

Election/Restrictions

PREFACE

1. In light of Applicant's argument filed on May 16, 2007, Examiner has reconsidered the restriction. New requirement follows:

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-5, drawn to an echo canceller for an asymmetric communication system, classified in class 370, subclass 286, shown in Figures 1A and 1B.

II. Claims 6-13, drawn to an asymmetric communication system having an echo canceller, classified in class 370, subclass 290; class 708, subclass 319, subclass 323, shown in Figures 8A and 8B.

III. Claims 14-17, drawn to a method for downloading a filter coefficient of an echo canceller, classified in class 370, subclass 292; class 708, subclass 301, subclass 319, shown in Figures 7A and 7B.

3. Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct

if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination III has separate utility such as a method for downloading filter coefficients. See MPEP § 806.05(d).

In the instant case, the different subcombinations are distinct because of the following:

a. Invention I is directed towards an echo canceller for an asymmetric communication system comprising: a delay line block, a filter coefficient table block, and a multiplication and accumulation block.

b. Invention II is directed towards an asymmetric communication system, having an echo canceller, comprising: an input interface block, a sub FIFO block, a main FIFO block, a multiplexer and an output interface block.

c. Invention III is directed towards a method for downloading a filter coefficient of an echo canceller in an asymmetric communication system, the method comprising the steps of (a) performing an echo cancel training for a newly generated loop during an initial period to determine a filter coefficient; and (b) comparing a write register value with a read register value.

Clearly, Inventions I, II and III are distinct combinations.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classifications and subject matter, the search required for each invention is not required for the other. Therefore, restriction for examination purposes as indicated above is proper. See MPEP 806.05 (d).

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently filed petition under 37 CFR 1,48(b) and by the fee required under 37 CFR 1.17(i).

7. A shortened statutory period for response to this office action is set to expire **0 (zero) months and 30 (thirty) days** from the mail date of this letter. Failure to respond within the period for response will result in **ABANDONMENT** of this ap[placation (see 35 U.S.C. 133 and MPEP 710.02, 710.02(b)).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramnandan Singh whose telephone number is (571) 272-7529. The examiner can normally be reached on M-TH (8:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang can be reached on (571) 272-7547. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ramnandan Singh
Examiner
Art Unit 2614

A handwritten signature in black ink, appearing to read 'Ramnandan Singh', with a horizontal line drawn underneath it.